Value Analysis/Value Planning Study

Detroit River International Crossing DRIC

February 2, 2007
The VE process is divided into two sections;

Value Analysis (VA)
and
Value Planning (VP)
VA/VP Scope

1. Review the 7 alternatives of the interchange that links the Plaza and I-75 and validate its merits. (Value Analysis)

2. Explore other feasible alternatives to assure that all viable options are considered. (Value Planning)
Section #1
Value Analysis
### Performance Matrix

**Excellent = 5**
**Very Good = 4**
**Good = 3**
**Acceptable = 2**
**Poor = 1**
**Unacceptable = 0**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight of Importance</th>
<th>Interchange 1</th>
<th>Interchange 2</th>
<th>Interchange 3</th>
<th>Interchange 4</th>
<th>Interchange 5</th>
<th>Interchange 6</th>
<th>Interchange 1 Mod</th>
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<tbody>
<tr>
<td>1 Access to and From Plaza</td>
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<td>4.6</td>
<td>46.0</td>
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<td>3.62</td>
<td>3.18</td>
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<td>3.53</td>
<td>3.68</td>
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# Acceptance Matrix

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<th>Interchange 2</th>
<th>Interchange 3</th>
<th>Interchange 4</th>
<th>Interchange 5</th>
<th>Interchange 6</th>
<th>Interchange 1Mod</th>
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<tbody>
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<td>(1-5)</td>
<td>(1-5)</td>
<td>(1-5)</td>
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<td>Protect Community/Neighborhood</td>
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<td>Impact to Utilities</td>
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<td>Average Weighted Rating</td>
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<td>2.43</td>
<td>2.70</td>
<td>3.26</td>
<td>3.72</td>
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</tbody>
</table>

Excellent = 5  
Very Good = 4  
Good = 3  
Acceptable = 2  
Poor = 1  
Unacceptable = 0
## Value Index

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Interchange 1</th>
<th>Interchange 2</th>
<th>Interchange 3</th>
<th>Interchange 4</th>
<th>Interchange 5</th>
<th>Interchange 6</th>
<th>Interchange 1 Mod</th>
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<tbody>
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<td>3.42</td>
<td>3.53</td>
<td>3.68</td>
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</table>
Summary

• Based on the evaluation, Interchanges 1 and 3 are ranked the highest.
• If cost is not part of the evaluation at this stage, Interchange 1 Mod should also be considered.
• In general, all interchange options are rated good for performance.
Section #2
Value Planning
Interchange VP1
Interchange VP1

• Advantages:
  – Maintain Clark and Springwells Interchanges.
  – Localizes impacts to Service Drives.
  – Requires less ROW.
  – Reduces impacts North of I-75.

• Disadvantages:
  – Design speed 30 MPH in circle.
  – Close Livernois bridge.
  – Closes Livernois/Dragoon Interchange.
  – Impacts 64 unit Building.
Interchange VP3
Interchange VP3

• Advantages:
  – Maintain Clark and Springwells Interchanges.
  – Localizes impacts to Service Drives.
  – Requires less ROW.
  – Reduces impacts North of I-75.
  – Localizes impact to Delray.
  – Less Bridge area.
  – Reduces bridges over Fort Street.
Interchange VP3

• Disadvantages:
  – Design speed 30 MPH.
  – Close Dragoon and Livernois Bridges.
  – Close Livernois/Dragoon Interchange.
  – Discontinuity in Service Drives.
Recommendations

• VP Team recommends that Interchanges VP1 and VP3 be considered for further study.
Design Suggestions

1. Reconstruct I-75 between River Rouge Bridge and Grand Boulevard.
2. Reconstruct I-75 between Springwells and Grand Boulevard.
3. Reconstruct I-75 within Project Limits.
4. Create CD roads and Eliminate Service Drives.
Design Suggestions

5. Abandon Local roads between Fort Street and NB Service Drive.
6. Combine Plaza and Local Off Ramps.
7. Combine Plaza and Local On Ramps.
8. Close I-75 during Construction.
Design Suggestions

10. Perform utility relocation early.
11. Use Purchase contract for long lead items.
13. Perform SUE advance contract.